

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference TJ0402 - PCT	FOR FURTHER ACTION <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>		BEST AVAILABLE COPY
International application No. PCT/JP2004/008516	International filing date (day/month/year) 10/06/2004	(Earliest) Priority Date (day/month/year) 11/07/2003	
Applicant TOYOTA JIDOSHA KABUSHIKI KAISHA			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☒ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 2, 3

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/008516

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01L29/739

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 452 228 B1 (HARA KUNIHICO ET AL) 17 September 2002 (2002-09-17) column 16, line 40 - column 17, line 54; figures 19,20	1,2
X	US 5 866 931 A (ROSSEN REBECCA ET AL) 2 February 1999 (1999-02-02) column 6, line 16 - line 40; figure 6	1,2
X	US 5 753 942 A (SEOK KYUNG-WOOK) 19 May 1998 (1998-05-19) column 5, line 4 - line 27; figures 5a,5b	1,2
X	EP 1 093 168 A (SHINDENGEN ELECTRIC MFG COMPAN) 18 April 2001 (2001-04-18) paragraphs '0116! - '0120!, '0134!, '0135!; figures 25a,25b,31,32a,32b	3,4
	-/--	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

2 December 2004

Date of mailing of the international search report

13. 12. 2004

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/008516

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 271 562 B1 (GRAF HEIMO ET AL) 7 August 2001 (2001-08-07) column 6, line 41 - column 9, line 2; figure 1 -----	5,6
X	US 6 008 092 A (GOULD HERBERT J) 28 December 1999 (1999-12-28) column 3, line 28 - column 6, line 34; figures 1,2 -----	5,6
X	US 5 451 531 A (TOMOMATSU YOSHIFUMI ET AL) 19 September 1995 (1995-09-19) column 10, line 59 - column 11, line 25; figure 5 -----	5,6

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/008516

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6452228	B1	17-09-2002	JP 11330464 A DE 19900171 A1 JP 11251592 A SE 519692 C2 SE 9900008 A US 6165822 A JP 2000200907 A	30-11-1999 08-07-1999 07-09-1999 01-04-2003 06-07-1999 26-12-2000 18-07-2000
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